

GE 159 Plastics Avenue Pittsfield, MA 01201 USA

Transmitted via Overnight Courier

July 17, 2007

Mr. Richard Hull U.S. Environmental Protection Agency EPA New England One Congress Street, Suite 1100 Boston, Massachusetts 02114-2023

Re: GE-Pittsfield/Housatonic River Site

Groundwater Management Area 3 (GECD330) LNAPL Recovery Assessment – Spring 2007

Dear Mr. Hull:

In the February 27, 2007 Groundwater Management Area 3 NAPL Monitoring Report for Fall 2006 (Fall 2006 NAPL Report), the General Electric Company (GE) summarized the results of activities performed from July through December 2006 related to the monitoring and recovery of light non-aqueous phase liquid (LNAPL) at the Plant Site 2 Groundwater Management Area (GMA 3) and proposed modifications to certain LNAPL monitoring activities. As discussed in that report, LNAPL volumes of greater than one liter were manually removed from five monitoring wells (wells 51-8, 51-17, 59-3R, GMA3-10, and GMA3-12) during Fall 2006. At four of those locations, GE proposed to conduct LNAPL recovery testing to evaluate which well, if any, is the best location for the installation of an automated LNAPL recovery system. The fifth well (51-17) was not considered as a candidate for installation of an automated LNAPL recovery system, since it is located adjacent to the existing automated skimmer system at well 51-21.

That proposal was conditionally approved by the United States Environmental Protection Agency (EPA) in a letter dated April 19, 2007, and the LNAPL recovery testing was completed in May 2007. This letter summarizes the LNAPL recovery testing completed and provides the data obtained. In addition, this letter includes an evaluation of those results and GE's identification of the best well in which to install an additional LNAPL recovery system.

GE performed the EPA-approved LNAPL recovery testing at wells 51-8, 51-17, 59-3R, GMA3-10, and GMA3-12 over a three—day period between May 15 and May 17, 2007. The well locations are indicated on attached Figure 1. The testing consisted of the monitoring of LNAPL at each of the selected monitoring wells over regular intervals (as described below). Any LNAPL that was monitored in a well was removed with a peristaltic pump and the well was allowed to recover until the next monitoring interval. To assess the LNAPL recovery potential under varying removal scenarios, GE conducted the tests under varying conditions. The first day of testing consisted of LNAPL monitoring and removal at approximately one-hour intervals. The LNAPL recovery time was doubled to approximately two hours on the second day of testing and increased to four hours on the third and final day of testing. The data obtained during the LNAPL recovery tests are included in Attachment A to this letter.

The initial LNAPL thicknesses at the wells at the start of testing ranged from 0.03 feet (at well 51-8) to 1.43 feet (at well 59-3R). Initial thicknesses at wells GMA3-10 and GMA3-12 were measured at 0.71 feet and 0.07 feet, respectively. As shown on the data forms within Appendix A, following the initial removal of LNAPL, a minimal amount of LNAPL recovered into the wells during the subsequent monitoring periods, particularly at wells 51-8 and GMA3-12 which contained the least amount of initial LNAPL measured. Well 59-3R had the greatest average LNAPL thicknesses during the first two days of testing (0.78 feet and 0.19 feet, respectively), while well GMA3-10 had the greatest thickness on day three (0.23 feet). Attachment B-1 illustrates the general decrease in LNAPL thickness observed during testing, while Attachments B-2 through B-4 provide a more detailed views of the changes in recovery thickness observed during each day of testing.

The LNAPL recovery results are summarized in Table 1 and indicate that the total volume of LNAPL removed per well during the testing period ranged from 0.074 liters (at well 51-8) to 3.782 liters (at well 59-3R). Total LNAPL removed at the remaining two wells totaled 1.851 liters (at well GMA 3-10) and 0.964 liters (at well GMA3-12).

As anticipated, the wells that exhibited a greater LNAPL thickness also exhibited greater LNAPL recovery rates, as calculated by dividing the volume of LNAPL removed during each interval by the time interval between pumping rounds. Specifically, the overall LNAPL recovery rate at well 59-3R (0.189 liters/hr) was more then double the next closest rate at GMA3-10 (0.076 liters/hr). The average daily and overall LNAPL recovery rates are shown in Table 1. The recovery rates for each pumping interval are provided on the graphs attached as Attachment C to this letter.

Of the wells that were tested, none exhibited overall LNAPL recovery rates greater than the 0.5 liters/hour rate established in the FSP/QAPP that would trigger consideration of that well as a candidate for the installation of a recovery system. Well 59-3R did exceed that value between the first two removal intervals on the first day of testing. The average recovery rate of 0.189 liters/hour over the three-day testing period, however, was less then half of the normal criterion for installation of a recovery system.

Nonetheless, GE wishes to aggressively recover LNAPL in this area, particularly in light of the potential observation of LNAPL at well GMA3-11 during the spring 2007 NAPL monitoring event, located approximately 100 feet downgradient of the previously delineated extent of LNAPL in this area. As verbally reported on June 29, 2007, an apparent LNAPL thickness of 0.09 feet was recorded at well GMA3-11 during the April 2007 monitoring event, although LNAPL was not observed during two subsequent monthly monitoring rounds conducted at that location. GE has initiated weekly monitoring at well GMA3-11 to assess whether the prior instrument detection of LNAPL was accurate or was isolated or erroneous data, as the extent of LNAPL in this area has been relatively stable for the past several years. No LNAPL has been observed during the weekly monitoring rounds that have been conducted to date. Regardless of the monitoring results of well GMA3-11, GE proposes to install a new LNAPL recovery system at or near monitoring well 59-3R. The system will be operated for a period of at least one year, after which GE will assess the LNAPL recovery results to determine if the recovery volume is sufficient to justify continued operation of the system.

The proposed system will be similar to that recently installed in well GMA1-17W (within GMA 1) and will consist of a floating skimmer, pneumatic bladder pump, compressor, and tank-full shut off control. LNAPL, if present, will be pumped into a 30-gallon steel closed-top DOT-approved container. The complete system will be housed in a secure weather proof hazardous materials hut with an approximate 125 gallon capacity sump for spill containment purposes. A liquid level detection shut down mechanism

within the sump will operate as a back-up to the drum full shut off control. The LNAPL storage container will be removed and replaced every thirty days (at a maximum), or when full. If space limitations between Buildings 51 and 59 prohibit the installation of the skimmer system in well 59-3R, GE proposes to install a new LNAPL recovery well as near as possible to that well to allow the associated storage hut to be constructed without interfering with other operations at the facility.

GE will provide updates on the installation of the new skimmer and, following activation, LNAPL recovery data, in its monthly reports on overall activities at the GE-Pittsfield/Housatonic River Site, along with the results of its other ongoing NAPL monitoring and recovery efforts at GMA 3. Those results, along with overall assessments of the GMA 3 NAPL monitoring program, will also continue to be provided to EPA in GE's semi-annual monitoring reports for GMA 3. GE will provide the assessment of the initial LNAPL recovery results of the well 59-3R automated recovery system described above in the next semi-annual monitoring report submitted after one year of operation of that system. That assessment will include a proposal to modify or remove the well 59-3R system, if warranted.

Please contact me if you have any questions or comments.

Sincerely,

Richard W. Gates

Remediation Project Manager

Shad W. Gates Mad fee

Attachments

cc: Dean Tagliaferro, EPA
Tim Conway, EPA*
Holly Inglis, EPA
Rose Howell, EPA*
K.C. Mitkevicius, USACE
Linda Palmieri, Weston (2 copies)
Anna Symington, MDEP*
Jane Rothchild, MDEP*
Susan Steenstrup, MDEP (2 copies)
Mayor James Ruberto, City of Pittsfield
Pittsfield Commissioner of Public Health
Nancy E. Harper, MA AG
Dale Young, MA EOEA

Michael Carroll, GE*
Andrew Silfer, GE
Rod McLaren, GE*
Mark Harkness, GE
Andrew Hogeland, GE Advanced Materials
Steven Deloye, GE Advanced Materials
James Nuss, ARCADIS BBL
James Bieke, Goodwin Procter
John Ciampa, SPECTRA
Public Information Repositories
GE Internal Repositories

*cover letter only

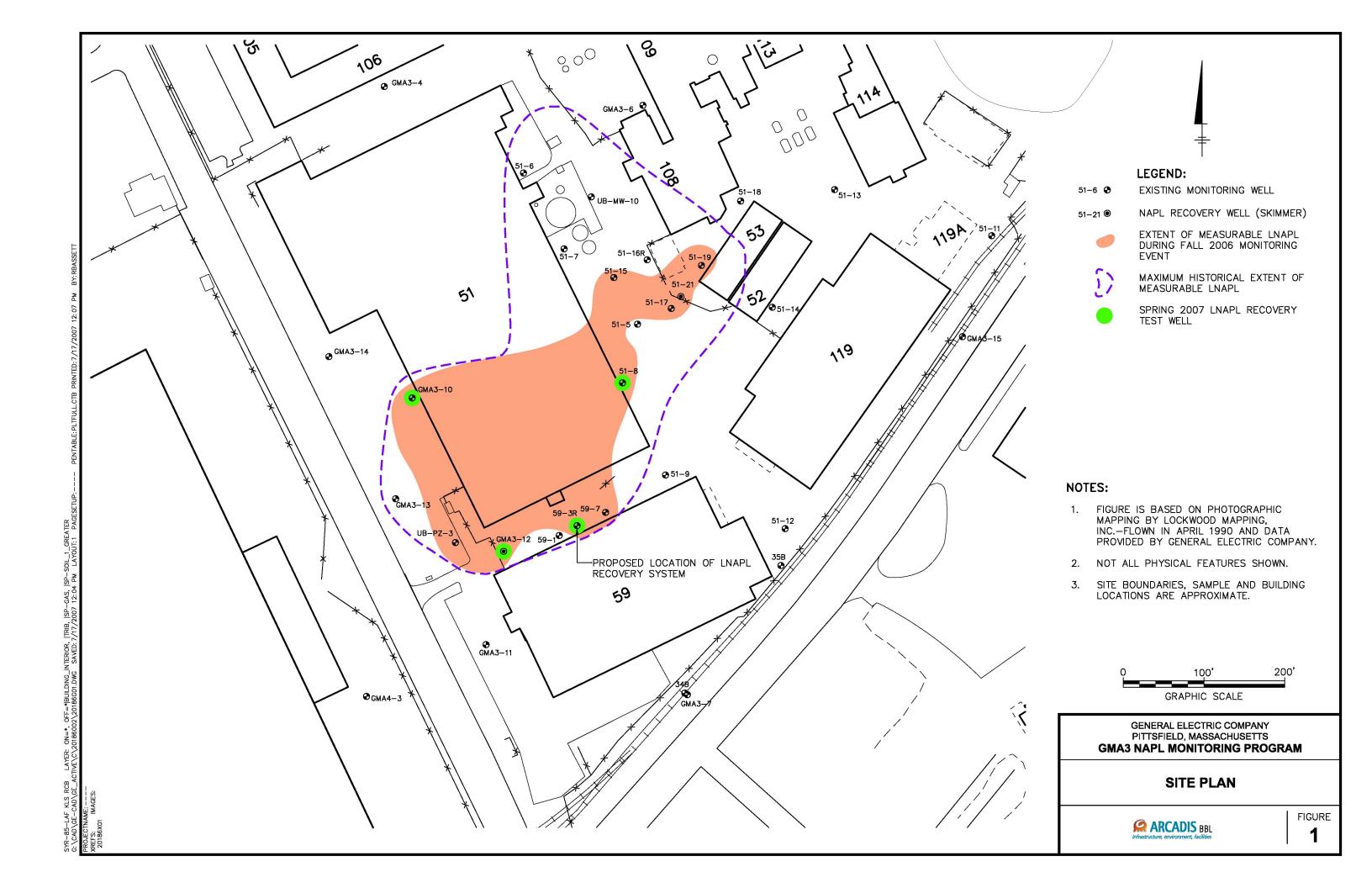
Table 1 LNAPL Recovery Summary LNAPL Recovery Assessment - Spring 2007

Groundwater Management Area 3 General Electric Company - Pittsfield, Massachusetts

Well ID	51-8	59-3R	GMA3-10	GMA3-12
Day One - One Hour Recovery In	tervals			
Initial LNAPL Thickness (feet)	0.030	1.430	0.710	0.070
Average LNAPL Thickness (feet)	0.020	0.780	0.260	0.040
Total LNAPL Removal (liters)	0.043	2.869	0.956	0.618
Average LNAPL Removal (liters)	0.011	0.454	0.151	0.114
Average Recovery Rate (liters/hr)	0.008	0.431	0.106	0.091
Day Two - Two Hour Recovery In	tervals			
Initial LNAPL Thickness (feet)	0.010	0.420	0.250	0.030
Average Thickness (feet)	0.010	0.190	0.150	0.010
Total LNAPL Removal (liters)	0.019	0.598	0.475	0.173
Average LNAPL Removal (liters)	0.008	0.114	0.076	0.038
Average Recovery Rate (liters/hr)	0.004	0.038	0.034	0.011
Day Three - Four Hour Recovery	Intervals			
Initial LNAPL Thickness (feet)	0.010	0.170	0.150	0.020
Average Thickness (feet)	0.010	0.170	0.230	0.020
Total LNAPL Removal (liters)	0.012	0.315	0.420	0.173
Average LNAPL Removal (liters)	0.008	0.114	0.151	0.038
Average Recovery Rate (liters/hr)	0.001	0.019	0.030	0.011
Overall				
Average Thickness (feet)	0.010	0.440	0.210	0.030
Total LNAPL Removal (liters)	0.074	3.782	1.851	0.964
Average LNAPL Removal (liters)	0.008	0.265	0.114	0.076
Average Recovery Rate (liters/hr)	0.004	0.189	0.076	0.038

Notes:

- Initial LNAPL thickness on Day One represents conditions prior to testing.
 Initial thickness on Days Two and Three represent recovery from prior days testing (approximately 16 hours).
- 2. Average LNAPL removed represents average removal per pumping interval.
- 3. Average LNAPL recovery rate represents average recovery between pumping intervals.



Attachments

Attachment A

LNAPL Recovery Test Field Logs

WELL ID 51-8
SITE GE Pittsfield, MA
LOCATION GMA 3 - Unkamet Brook Area

PAGE 1 OF 1

PERSONNEL KLC/RAB

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO LNAPL (Feet BMP)	DEPTH TO WATER (Feet BMP)	LNAPL THICKNESS (Feet)	LNAPL REMOVAL (Liters)	LNAPL REMOVAL (Gallons)	RECOVERY TIME (Hours)	RECOVERY RATE (ft/hr)	RECOVERY RATE (Liter/Hr)	RECOVERY RATE (Gal/Hr)
5/15/07 11:00 AM	1100	1108		8	10.02	10.05	0.03	0.019	0.005		-		
5/15/07 12:00 PM	1200	1203	52	3	10.03	10.05	0.02	0.012	0.003	0.867	0.023	0.014	0.004
5/15/07 1:00 PM	1300	1301	59	1	10.03	10.04	0.01	0.006	0.002	0.983	0.010	0.006	0.002
5/15/07 2:00 PM	1400	1401	59	1	10.03	10.04	0.01	0.006	0.002	0.983	0.010	0.006	0.002
5/15/07 3:00 PM	1500		59			10.04				0.983			
5/15/07 4:00 PM	1600		119			10.05				1.983			
5/16/07 8:30 AM	830	830	999	1	10.09	10.10	0.01	0.006	0.002	16.650	0.001	0.0004	0.0001
5/16/07 10:30 AM	1030	1031	119	1	10.08	10.09	0.01	0.006	0.002	1.983	0.005	0.003	0.001
5/16/07 12:30 PM	1230	1231	119	1	10.07	10.08	0.01	0.006	0.002	1.983	0.005	0.003	0.001
5/16/07 2:30 PM	1430	-	119			10.07				1.983			
5/16/07 4:30 PM	1630		120			10.09				2.000			
5/17/07 9:10 AM	910	912	1239	2	10.13	10.14	0.01	0.006	0.002	20.650	0.0005	0.0003	0.0001
5/17/07 12:50 PM	1250	1251	219	1	10.13	10.14	0.01	0.006	0.002	3.650	0.003	0.002	0.0004
5/17/07 4:40 PM	1640		206			10.14				3.433			

NOTES/OBSERVATIONS:

Total well depth (Mea	sure at start of each day of testing	g): 5/15	5: 14.62'	5/16: 14.62'	5/17: 14.64'
	Total LNAPL removal:	0.043 Lite	ers		
5/16/07 T	Total LNAPL removal:	0.019 Lite	ers		
5/17/07 T	Total LNAPL removal:	0.012 Lite	ers		
3-Day T	Total LNAPL removal:	0.074 Lite	ers		

WELL ID 59-3R

PAGE 1 OF 1

SITE GE Pittsfield, MA

PERSONNEL KLC/RAB

LOCATION GMA 3 - Unkamet Brook Area

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO LNAPL (Feet BMP)	DEPTH TO WATER (Feet BMP)	LNAPL THICKNESS (Feet)	LNAPL REMOVAL (Liters)	LNAPL REMOVAL (Gallons)	RECOVERY TIME (Hours)	RECOVERY RATE (ft/hr)	RECOVERY RATE (Liter/Hr)	RECOVERY RATE (Gal/Hr)
5/15/07 11:30 AM	1130	1135		5	10.35	11.78	1.43	0.882	0.228				
5/15/07 12:30 PM	1230	1235	55	5	10.4	11.45	1.05	0.648	0.167	0.917	1.145	0.707	0.182
5/15/07 1:30 PM	1330	1334	55	4	10.43	11.22	0.79	0.487	0.126	0.917	0.862	0.532	0.137
5/15/07 2:30 PM	1430	1433	56	3	10.44	11.05	0.61	0.376	0.097	0.933	0.654	0.403	0.104
5/15/07 3:30 PM	1530	1535	57	5	10.46	10.87	0.41	0.253	0.065	0.950	0.432	0.266	0.069
5/15/07 4:20 PM	1620	1623	45	3	10.46	10.82	0.36	0.222	0.057	0.750	0.480	0.296	0.076
5/16/07 8:40 AM	840	999	977	2	10.46	10.88	0.42	0.259	0.067	16.283	0.026	0.016	0.004
5/16/07 10:40 AM	1040	1042	118	2	10.48	10.80	0.32	0.197	0.051	1.967	0.163	0.100	0.026
5/16/07 12:40 PM	1240	1242	118	2	10.50	10.60	0.10	0.062	0.016	1.967	0.051	0.031	0.008
5/16/07 2:40 PM	1440	1441	118	1	10.48	10.52	0.04	0.025	0.006	1.967	0.020	0.013	0.003
5/16/07 4:40 PM	1640	1642	119	2	10.50	10.59	0.09	0.056	0.014	1.983	0.045	0.028	0.007
5/17/07 8:56 AM	856	900	974	4	10.55	10.72	0.17	0.105	0.027	16.233	0.010	0.006	0.002
5/17/07 12:40 PM	1240	1244	220	4	10.55	10.71	0.16	0.099	0.025	3.667	0.044	0.027	0.007
5/17/07 4:30 PM	1630	206	226	3	10.56	10.74	0.18	0.111	0.029	3.767	0.048	0.029	0.008

NOTES/OBSERVATIONS:

Total well depth (Measure at sta	rt of each day of testing):	5/15: 17.04'	5/16: 17.05'	5/17: 17.05'
5/15/07 Total LNAP	L removal: 2.869	Liters		
5/16/07 Total LNAP	L removal: 0.598	Liters		
5/17/07 Total LNAP	L removal: 0.315	Liters		
3-Day Total LNAP	L removal: 3.782	Liters		

WELL ID GMA3-10

PAGE 1 OF 1

SITE GE Pittsfield, MA

PERSONNEL EMC/JM

LOCATION GMA 3 - Unkamet Brook Area

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO LNAPL (Feet BMP)	DEPTH TO WATER (Feet BMP)	LNAPL THICKNESS (Feet)	LNAPL REMOVAL (Liters)	LNAPL REMOVAL (Gallons)	RECOVERY TIME (Hours)	RECOVERY RATE (ft/hr)	RECOVERY RATE (Liter/Hr)	RECOVERY RATE (Gal/Hr)
5/15/07 11:30 AM	1130	1132		2	10.09	10.8	0.71	0.438	0.113				
5/15/07 12:30 PM	1230	1233	58	3	10.11	10.42	0.31	0.191	0.049	0.967	0.321	0.198	0.051
5/15/07 1:30 PM	1330	1333	57	3	10.14	10.36	0.22	0.136	0.035	0.950	0.232	0.143	0.037
5/15/07 2:30 PM	1430	1432	57	2	10.13	10.20	0.07	0.043	0.011	0.950	0.074	0.045	0.012
5/15/07 3:30 PM	1530	1532	58	2	10.14	10.28	0.14	0.086	0.022	0.967	0.145	0.089	0.023
5/15/07 4:30 PM	1630	1631	58	1	10.15	10.25	0.10	0.062	0.016	0.967	0.103	0.064	0.016
5/16/07 9:05 AM	905	907	999	2	10.15	10.40	0.25	0.154	0.040	16.650	0.015	0.009	0.002
5/16/07 11:05 AM	1105	1107	118	2	10.18	10.35	0.17	0.105	0.027	1.967	0.086	0.053	0.014
5/16/07 1:05 PM	1305	1307	118	2	10.20	10.34	0.14	0.086	0.022	1.967	0.071	0.044	0.011
5/16/07 3:05 PM	1505	1508	118	3	10.17	10.30	0.13	0.080	0.021	1.967	0.066	0.041	0.011
5/16/07 5:05 PM	1705	1707	117	2	10.20	10.28	0.08	0.049	0.013	1.950	0.041	0.025	0.007
5/17/07 8:30 AM	830	833	983	3	10.23	10.38	0.15	0.093	0.024	16.383	0.009	0.006	0.001
5/17/07 12:15 PM	1215	1219	222	4	10.22	10.54	0.32	0.197	0.051	3.700	0.086	0.053	0.014
5/17/07 3:50 PM	1550	1553	206	3	10.24	10.45	0.21	0.130	0.033	3.433	0.061	0.038	0.010

NOTES/OBSERVATIONS:

Total well depth (Me	easure at start of each day of te	esting):	5/15: 17.83'	5/16: 17.83'	5/17: 17.84'	5/17: 17.84'	
5/15/07	Total LNAPL removal:	0.956	Liters				
5/16/07	Total LNAPL removal:	0.475	Liters				
5/17/07	Total LNAPL removal:	0.420	Liters				
3-Day	Total LNAPL removal:	1.851	Liters				

WELL ID GMA3-12
SITE GE Pittsfield, MA
LOCATION GMA 3 - Unkamet Brook Area

PAGE 1 OF 1

PERSONNEL EMC/JM

DATE	MEASUREMENT/ PUMP START TIME	PUMP STOP TIME	RECOVERY TIME (Minutes)	PUMPING TIME (Minutes)	DEPTH TO LNAPL (Feet BMP)	DEPTH TO WATER (Feet BMP)	LNAPL THICKNESS (Feet)	LNAPL REMOVAL (Liters)	LNAPL REMOVAL (Gallons)	RECOVERY TIME (Hours)	RECOVERY RATE (ft/hr)	RECOVERY RATE (Liter/Hr)	RECOVERY RATE (Gal/Hr)
5/15/07 11:15 AM	1115	1120	0	5	10.55	10.62	0.07	0.173	0.045				
5/15/07 12:15 PM	1215	1216	55	1	10.56	10.59	0.03	0.074	0.019	0.917	0.033	0.081	0.021
5/15/07 1:15 PM	1315	1316	59	1	10.5	10.52	0.02	0.049	0.013	0.983	0.020	0.050	0.013
5/15/07 2:15 PM	1415	1418	59	3	10.57	10.64	0.07	0.173	0.045	0.983	0.071	0.176	0.045
5/15/07 3:15 PM	1515	1516	57	1	10.58	10.63	0.05	0.124	0.032	0.950	0.053	0.130	0.034
5/15/07 4:15 PM	1615	1616	59	1	10.58	10.59	0.01	0.025	0.006	0.983	0.010	0.025	0.006
5/16/07 8:55 AM	855	856	999	1	10.60	10.63	0.03	0.074	0.019	16.650	0.002	0.004	0.001
5/16/07 10:55 AM	1055	1056	119	1	10.60	10.61	0.01	0.025	0.006	1.983	0.005	0.012	0.003
5/16/07 12:55 PM	1255	1256	119	1	10.60	10.61	0.01	0.025	0.006	1.983	0.005	0.012	0.003
5/16/07 2:55 PM	1455	1456	119	1	10.60	10.61	0.01	0.025	0.006	1.983	0.005	0.012	0.003
5/16/07 4:55 PM	1655	1556	119	1	10.60	10.61	0.01	0.025	0.006	1.983	0.005	0.012	0.003
5/17/07 8:43 AM	843	845	1007	2	10.66	10.68	0.02	0.049	0.013	16.783	0.001	0.003	0.001
5/17/07 12:30 PM	1230	1234	225	4	10.68	10.71	0.03	0.074	0.019	3.750	0.008	0.020	0.005
5/17/07 4:00 PM	1600	1603	206	3	10.67	10.69	0.02	0.049	0.013	3.433	0.006	0.014	0.004

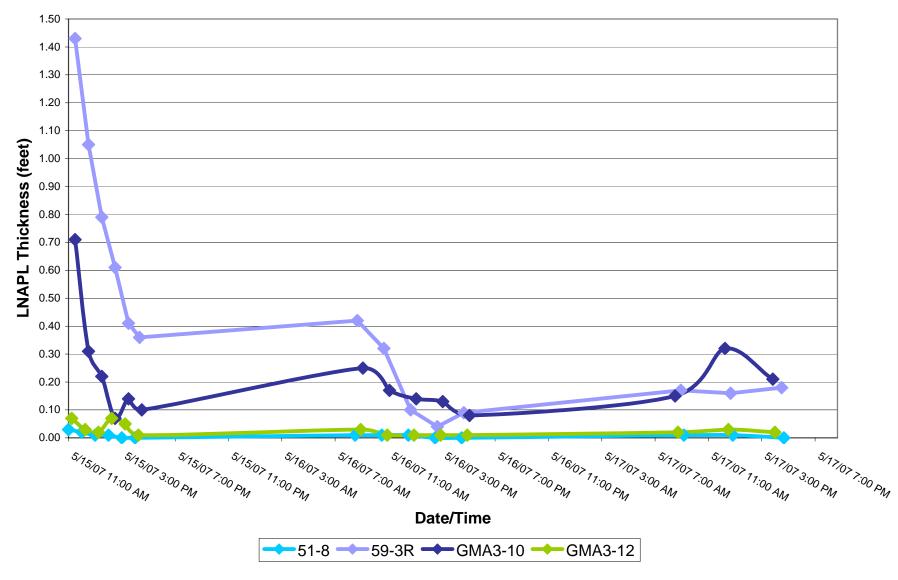
NOTES/OBSERVATIONS:

Tot	al well depth (Me	easure at start of each day of testi	ng):	5/15: ~22.0'	5/16: 21.25'	5/17: 21.5'
	5/15/07	Total LNAPL removal:	0.618	Liters		
		Total LNAPL removal:	0.173	Liters		
	5/17/07	Total LNAPL removal:	0.173	Liters		
	3-Day	Total LNAPL removal:	0.964	Liters		

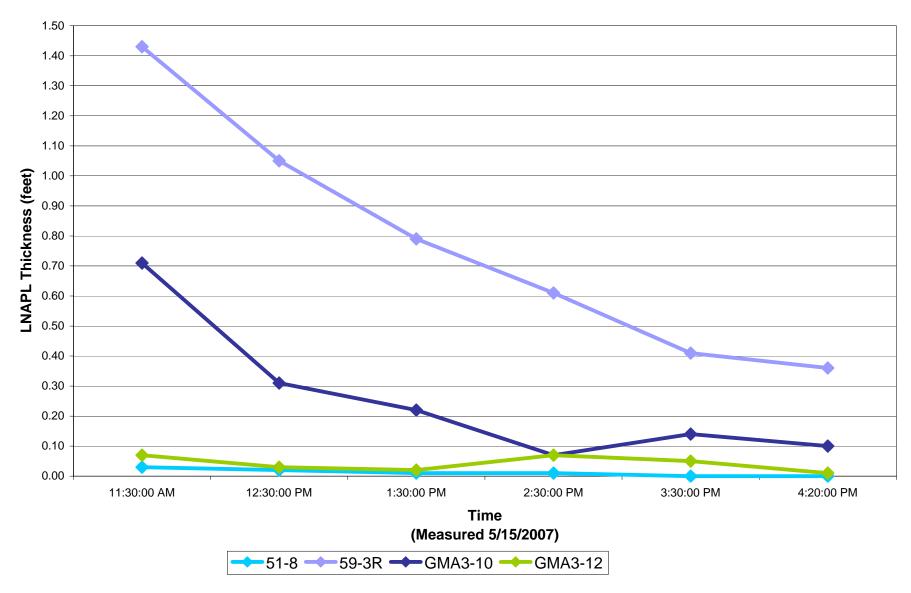
Attachment B

LNAPL Thickness Data

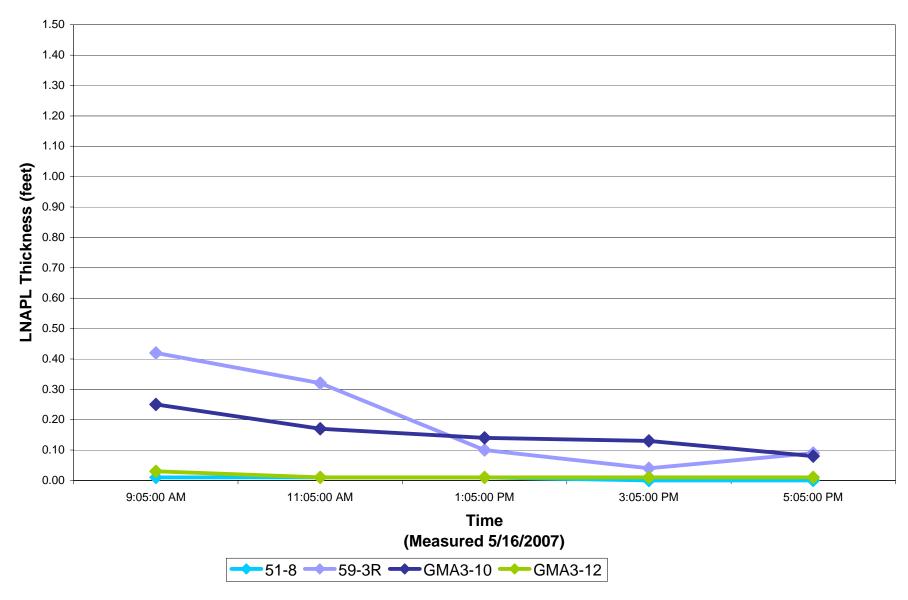
Attachment B-1 LNAPL Thickness Data LNAPL Recovery Assessment - Spring 2007 General Electric Company - Pittsfield, Massachusetts



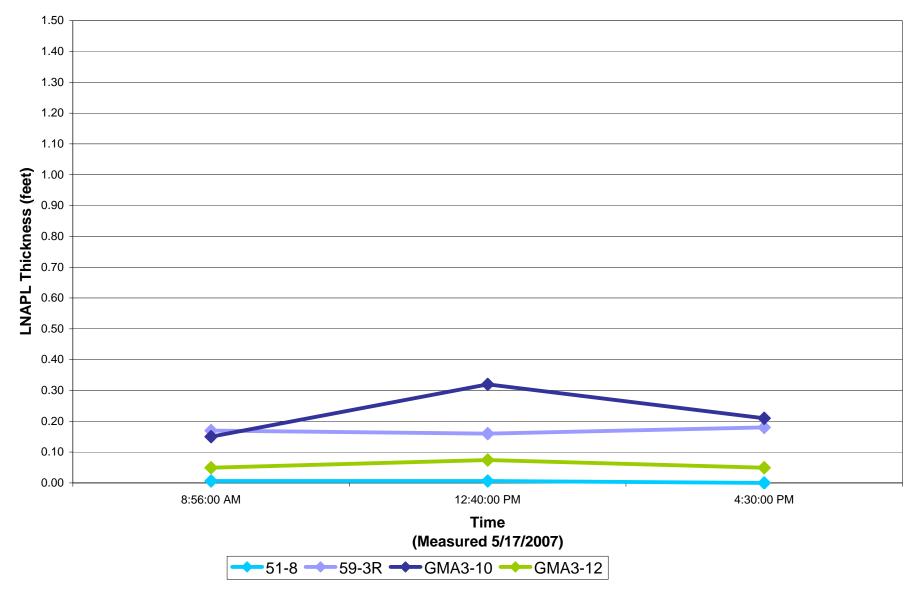
Attachment B-2
LNAPL Thickness - Day 1 (1 - Hour Recovery Interval)
LNAPL Recovery Assessment - Spring 2007
General Electric Company - Pittsfield, Massachusetts



Attachment B-3
LNAPL Thickness - Day 2 (2 - Hour Recovery Interval)
LNAPL Recovery Assessment - Spring 2007
General Electric Company - Pittsfield, Massachusetts



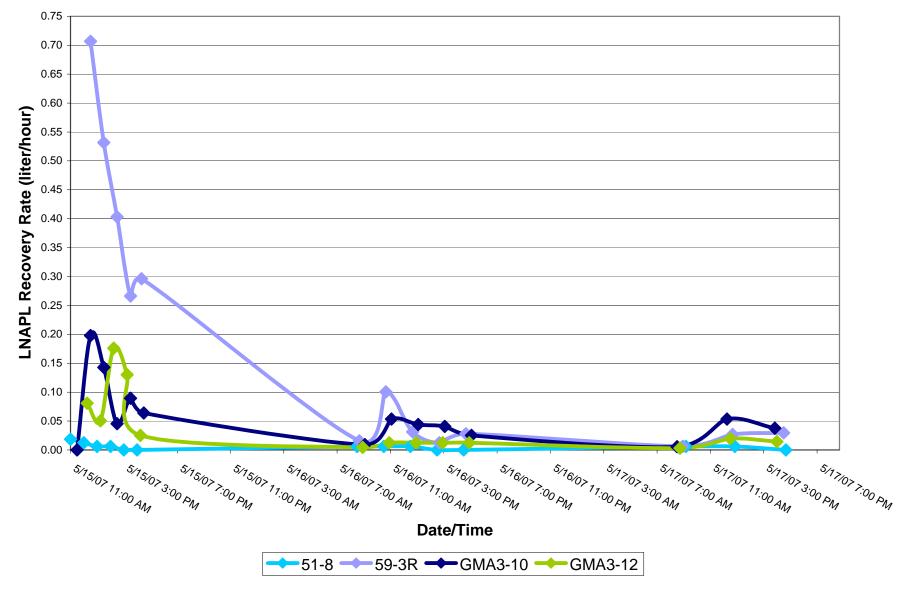
Attachment B-4
LNAPL Thickness - Day 3 (4 - Hour Recovery Interval)
LNAPL Recovery Assessment - Spring 2007
General Electric Company - Pittsfield, Massachusetts



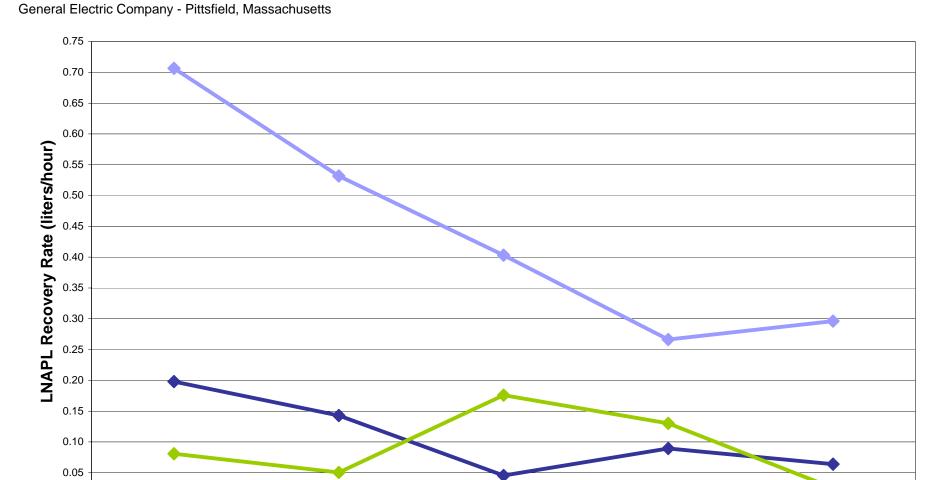
Attachment C

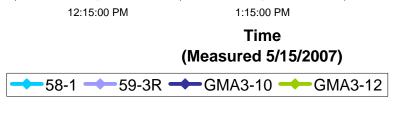
LNAPL Recovery Rate

Attachment C-1
LNAPL Recovery Rate
LNAPL Recovery Assessment - Spring 2007
General Electric Company - Pittsfield, Massachusetts



Attachment C-2 LNAPL Recovery Rate- Day 1 (1 - Hour Recovery Interval) LNAPL Recovery Assessment - Spring 2007





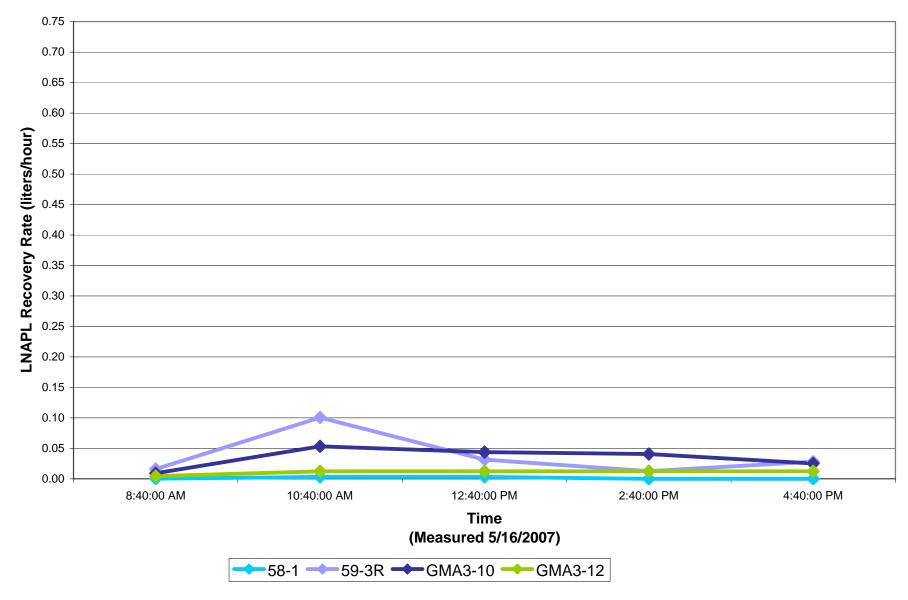
11:15:00 AM

0.00

3:15:00 PM

2:15:00 PM

Attachment C-3
LNAPL Recovery Rate - Day 2 (2 - Hour Recovery Interval)
LNAPL Recovery Assessment - Spring 2007
General Electric Company - Pittsfield, Massachusetts



7/17/2007

Attachment C-4
LNAPL Recovery Rate - Day 3 (4 - Hour Recovery Interval)
LNAPL Recovery Assessment - Spring 2007
General Electric Company - Pittsfield, Massachusetts

